

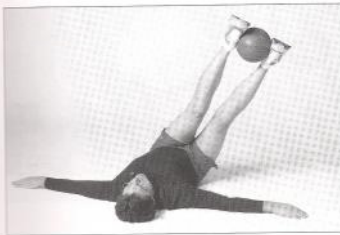
# Resource Section

## E. Strength Training - Core Strength

The following pictures are great ways to develop core strength and stability. These type of exercises help to contribute to building overall strength. These exercises will build a strong foundation, which will allow you to build sport specific strength more effectively. The pictures are in no particular order. They are provided to give you ideas to develop a strength training program. You do not need to do every exercise. Choose ones that interest you and change up the exercises every 6 - 10 weeks to keep it interesting.

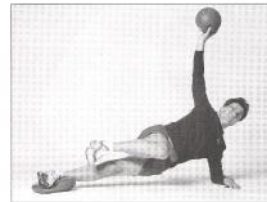
### V-UP AND OVER

1. Lie on your back and grip a medicine ball between your ankles.
2. Use your abdominal muscles to raise your legs and arms simultaneously so they meet together in the middle to form a V.
3. Now anchor your arms on the floor out to each side while keeping your legs up.
4. Slowly move the leg to the right and left, up to about 18 inches.
5. Return the legs to the floor and repeat.



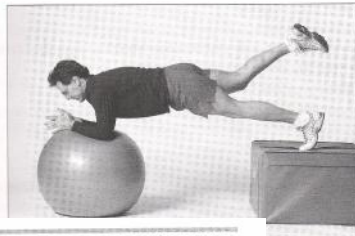
### ISOLATERAL FLEXION AND EXTENSION

1. Lie on your left side on the floor or with your feet on a disk pillow or a stability ball, bridging up onto your left forearm.
2. Contract the transversus abdominis.
3. Extend the non-bridging right arm at shoulder height.
4. Slowly bring the right knee toward the chest (flexion) and then extend the leg from the hip (extension).
5. Repeat on the other side.
6. You can also perform this exercise by holding a medicine ball at arm's length from your body at varying locations (pictured) or having your coach toss the ball to you.



### SINGLE-LEGGED STEP BOX STABILITY BALL ROLLOUTS

1. Place your forearms on the stability ball with your back to a step box or bench.
2. Lift one leg behind you onto the step box, followed by the other leg.
3. Hold this position for 5 to 10 seconds, then extend (raise) one leg a few inches off the step box. Repeat with the other leg.
4. Now, with both feet on the step box and your forearms on the stability ball, roll two inches forward, to the right, to the left, and backward.



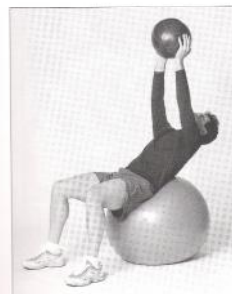
### HANGING LEG RAISE WITH MEDICINE BALL

1. Use elbow straps to hang from a chin-up bar.
2. Draw in the transversus abdominis.
3. Raise both knees to your chest, then to your right and left sides, and then to the pike position, keeping your feet swinging and your legs even with your hips. To increase the difficulty, place a medicine ball between your ankles.
4. Hold each position for several seconds.



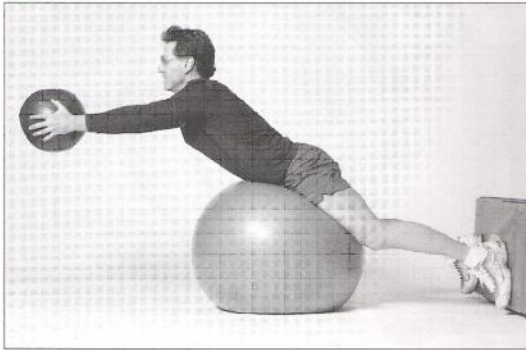
### STABILITY BALL CRUNCH

1. Sit on a stability ball and roll or walk your body down it until the ball hits the arch of your back.
2. Keep your feet on the ground at a little more than hip-width apart and your eyes looking at a spot on the ceiling at all times.
3. Cross your arms across your chest or hold a barbell with a wide snatch grip. Other options are holding a medicine ball over your head with both hands (pictured), or one hand, on your shoulders, or on your chest.
4. Contract the obliques (internal and external) while raising your chest toward the ceiling. Focus on a spot on the ceiling. The crunch is complete when your obliques have fully contracted (at the end of the range of contraction, the muscular intensity decreases).
5. Crunch to the center for 4 to 10 repetitions, then crunch to the right shoulder and then the left shoulder for 4 to 10 repetitions each.
6. As your skill level improves, lift one leg off the floor for half of the repetitions and then the other leg for the other half.



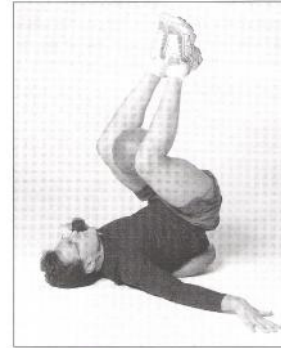
## BACK EXTENSION

1. Lie face down with your hips on a stability or Swiss ball.
2. Place both of your feet against a wall with your feet spread wider than the width of your shoulders.
3. Raise and lower your torso from the hips and cross your hands over your chest. This is called a "center extension."
4. Next, vary the movement by raising yourself to a single side or alternating from side to side. You can make this exercise more challenging by holding a medicine ball.



## PELVIC ROLL-UP

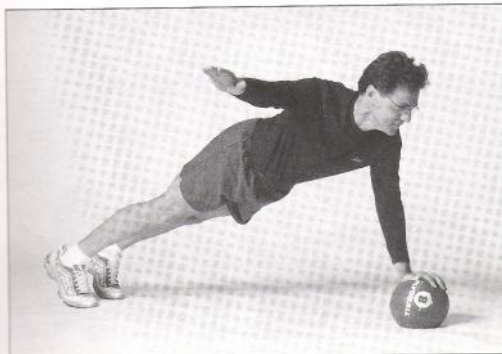
1. Lie on your back with your feet on the floor and your knees up. You may also perform this exercise with a disk pillow under the arch of your back. (See [www.performbetter.com](http://www.performbetter.com) for information on where to buy a disk pillow.)
2. Pre-set the abdominal muscles by drawing in the transversus abdominis. Focus on a spot on the ceiling to keep your chin up.
3. Place a medicine ball between your knees.
4. Raise both knees by using your abdominal muscles and rotating your pelvis.
5. When the transversus abdominis is fully contracted, pause and lift both of your knees one inch higher toward the ceiling.



## SINGLE-ARMED BALL BRIDGE

1. Place your left hand at the top of a medicine or stability ball. Put your right hand on the side of the ball. Your feet should be on the floor about six inches apart.
2. Step back until your hips are level and contract the transversus abdominis muscle.
3. Slowly raise your right arm out to the side and hold it there for 5 to 10 seconds.
4. Try performing the same exercise while standing on one leg.

*Note:* Beginners should skip step 3 and instead simply hold the extended position, with both of your hands on the ball, for 5 to 10 seconds. Then roll the ball about two inches forward, return, roll two inches to the right, two to the left, and two backward, keeping your feet in the same place.



## FIVE-WAY ROLLOUT SERIES

1. Lie face down with your forearms on a stability ball, your feet on the floor, and your back straight. Very slowly extend your forearms (a). Repeat 5 to 10 times.
2. Lie face down. Slowly "walk" over the ball with your hands until your shins and ankles lie on the stability ball. Complete a push-up (or several).
3. Pike at the hips, moving onto the tips of your toes on the stability ball, then lower your hips and raise first your left and then your right leg for five seconds each (b).
5. Finally, bring both knees forward to your chest several times, rolling the ball beneath your shins (c).
6. Once you have mastered this routine using both legs, try the sequence using only one leg.

